Bruhat Bangalore Mahanagara Palike

Excecutive Engineer Project Division Yelahanka

me of Work: Developments of roads and drains at Kogilu Layout Main and Cross Roads

Ward No.05 (Jakkur) Byatarayanapura Sub division

Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
Work								
300-1. **Earthwork excavation by manual means for roads,** drains & similar works in ordinary excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after aking of clods complete as per specifications(P.No-143 &136 ,I No-19.1&17.4& 17.1,KPWD SR 2018-0km lead= 57+2.0x1.28x8 =77.48								
Drain								
gilu Layout								
Main Road	1	777.00	1.10	1.05	897.44			
	1	450.00	1.10	1.00	495.00			
m Bakery Road	2	131.00	1.10	1.00	288.20			
nataka Pole Road	2	131.00	1.10	1.00	288.20			
Cross Krishnadevaraya Rd	2	207.00	1.10	1.00	455.40			
Crss Major Sandeep Rd	2	200.00	1.10	1.00	440.00			
verts	8	6.20	1.50	1.00	74.40			
alt								
mu Layout								
Cross	2	52.00	0.52	1.00	54.08			
Cross	2	333.00	0.52	0.50	173.16			
Cross	2	185.00	0.52	0.50	96.20			
Cross	2	234.00	0.52	0.50	121.68			
					3383.76	**Cum**	**215.28**	**728454.78**
Basic Rate	**130.00**							
Loading, Unloading& Lead	**77.48**							
AW6%	**7.80**							
Total	**215.28**							
M2100-10. Providing and laying **Plain cement concrete of mix 1:3:6** with OPC @ 220kgs, with shed 40mm and down size graded granite metal coarse aggregates @0.89cum and fine aggregates 0.46cum, in foundation mechanically mixed, placed in foundation and compacted by vibration uding curing for 14 days including cost of all materials, labour, HOM curing, form works, scaffolding centering complete as per specifications. (P.No-222,I No-27.18,KPWD SR 2018-19)								
Drain								
gilu Layout								
Main Road	1	777.00	1.10	0.15	128.21			
	1	450.00	1.10	0.15	74.25			
m Bakery Road	2	131.00	1.10	0.15	43.23			
nataka Pole Road	2	131.00	1.10	0.15	43.23			
Cross Krishnadevaraya Rd	2	207.00	1.10	0.15	68.31			
Crss Major Sandeep Rd	2	200.00	1.10	0.15	66.00			
verts	8	6.20	1.50	0.15	11.16			
					434.39	**Cum**	**5421.90**	**2355192.03**
Basic Rate	**5115.00**							
AW6%	**306.90**							
Total	**5421.90**							

Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
SSR 4-1.6 ; Providing and laying in **position plain cement concrete of Mix 1:2:4** with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregtes @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications. (P.No-13,I No-4.6,KPWD SR 2018-19)								
For Below Kerb Stone								
Nagilu Layout								
1st Main Road	1	777.00	0.20	0.10	15.54			
	1	450.00	0.20	0.10	9.00			
					24.54	**Cum**	**5747.32**	**141039.23**
Basic Rate	**5422.00**							
AW6%	**325.32**							
Total	**5747.32**							
SSR 4.9.2 : Providing **T.M.T steel reinforcement** for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specifications. Specificatio (I No-28.8.2,P No-229,KPWD SR 2018-19)								
Consider 60Kg/Cum	1	807.98	60.00		48478.50			
Consider 90Kg/Cum	1	27.38	90.00		2464.13			
					50942.63			
					50.94	**Tn**	**72326.98**	**3684526.44**
Basic Rate	**68233.00**							
AW6%	**4093.98**							
Total	**72326.98**							
Providing and laying **plain/reinforced cement concrete** for side drains using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specificationsdo- Wall & bottom thickness 15cm (I No-37.59.2,P No-271,KPWD SR 2018-19)								
CC Drain Raft								
Nagilu Layout								
1st Main Road	1	777.00	0.90	0.15	104.90			
	1	450.00	0.90	0.15	60.75			
Kuthi Bakery Road	2	131.00	0.90	0.15	35.37			
Karnataka Pole Road	2	131.00	0.90	0.15	35.37			
12th Cross Krishnadevaraya Rd	2	207.00	0.90	0.15	55.89			
12th Crss Major Sandeep Rd	2	200.00	0.90	0.15	54.00			
CC Drain Wall								
Nagilu Layout								
1st Main Road	2	777.00	0.15	0.60	139.86			
	2	450.00	0.15	0.60	81.00			
Kuthi Bakery Road	4	131.00	0.15	0.60	47.16			
Karnataka Pole Road	4	131.00	0.15	0.60	47.16			
12th Cross Krishnadevaraya Rd	4	207.00	0.15	0.60	74.52			
12th Crss Major Sandeep Rd	4	200.00	0.15	0.60	72.00			
					807.98			

Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
Culverts Raft	8	6.20	1.20	0.23	13.69			
Culverts Wall	16	6.20	0.23	0.60	13.69			
					27.38			
					835.35	**Cum**	**7070.20**	**5906121.26**
Basic Rate	**6670.00**							
AW6%	**400.20**							
Total	**7070.20**							
Providing and Fixing **pre cast covering Slab** made out of CC 1:2:4 with 10cm thick and Finishing cutting ,including form work,curing,including cost of alll materials, labour,hire charges of machinery,loading,unloading,lead and lift,transportation etc ,copmplete. (Data Rate)								
CC Drain Top Covering Slab								
Nagilu Layout								
1st Main Road	1	777.00	0.90		699.30			
	1	450.00	0.90		405.00			
Kuchi Bakery Road	2	131.00	0.90		235.80			
Karnataka Pole Road	2	131.00	0.90		235.80			
12th Cross Krishnadevaraya Rd	2	207.00	0.90		372.60			
12th Crss Major Sandeep Rd	2	200.00	0.90		360.00			
					2308.50	**Sqm**	**2337.00**	**5394964.50**
Data Rate	**2337.00**							
Providing and Fixing pre cast **covering Slab 250mm thick** made out of CC 1:2:4 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge ,KPWD SR 2018-19								
Culverts Top Slab	8	6.20	1.20		59.52			
					59.52	**Sqm**	**5418.00**	**322479.36**
Data Rate	**5418.00**							
Providing and fixing pre cast solid cement **concrete kerb stones** made out of C.C. 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., complete. (I No-5.30,P No-177,KPWD SR 2018-19)								
Nagilu Layout								
1st Main Road	1	777.00			1727.00			
	1	450.00			1000.00			
					2727.00	**Nos**	**432.48**	**1179372.96**
Basic Rate	**408.00**							
AW6%	**24.48**							
Total	**432.48**							
SSRB 800-1. **Painting two coats** after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. (I No-2X1,P No-180,KPWD SR 2018-19)								
Nagilu Layout								
1st Main Road	1	777.00		0.35	271.95			
	1	450.00		0.35	157.50			
					429.45	**Sqm**	**84.80**	**36,417.36**
Basic Rate	**80.00**							
AW6%	**4.80**							
Total	**84.80**							

Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
SRRB M300-14. **Excavation for roadwork in all types of soil** by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications MORTH Specificatio MORTH Specification No.301Loading and unloading with 8km lead= (I No-19.14,P No-143,KPWD SR 2018-19)								
Kogilu Layout								
1st Main Road Widening	2	477.00	0.90	0.20	171.72			
CC Road								
Cross Road-3	1	131.00	5.00	0.30	196.50			
Karnataka Pole Road	1	131.00	5.00	0.30	196.50			
Cross Road-1	1	62.00	2.50	0.20	31.00			
Cross Road-2	1	54.00	2.50	0.20	27.00			
Maitru Layout								
1st Cross	1	437.00	5.50	0.30	721.05			
2nd Cross	1	185.00	5.50	0.30	305.25			
3rd Cross	1	234.00	5.50	0.30	386.10			
					2035.12	**Cum**	**63.94**	130125.
Basic Rate	**41.00**							
Lead	**20.48**							
AW6%	**2.46**							
Total	**63.94**							
SRRB 300-58. **Compaction of original ground** by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications.(I No-19.64,P No-247,KPWD SR 2018-19)								
Kogilu Layout								
Cross Road-3	1	131.00	5.00		655.00			
Karnataka Pole Road	1	131.00	5.00		655.00			
Cross Road-1	1	62.00	2.50		155.00			
Cross Road-2	1	54.00	2.50		135.00			
Maitru Layout								
1st Cross	1	437.00	5.50		2403.50			
2nd Cross	1	185.00	5.50		1017.50			
3rd Cross	1	234.00	5.50		1287.00			
					6308.00	**Sqm**	**6.36**	40,118.
Basic Rate	**6.00**							
AW6%	**0.36**							
Total	**6.36**							
Construction of **granular sub-base Grading-V** as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications.(I No-20.5,P No-153,KPWD SR 2018-19)								
Kogilu Layout								
1st Main Road Widening	2	477.00	0.90	0.15	128.79			
Maitru Layout								
1st Cross	1	437.00	5.50	0.15	360.53			
2nd Cross	1	185.00	5.50	0.15	152.63			
3rd Cross	1	234.00	5.50	0.15	193.05			
					834.99	**Cum**	**1994.92**	1665738.
Basic Rate	**1882.00**							

Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
AW6%	**112.92**							
Total	**1994.92**							
SRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap basalt to **wet mix macadam** specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications(P.No-155,I No-20.18,KPWD SR 2018-19)								
Hogilu Layout								
1st Main Road Widening	2	477.00	0.90	0.225	193.19			
Mattru Layout								
1st Cross	1	437.00	5.50	0.225	540.79			
2nd Cross	1	185.00	5.50	0.225	228.94			
3rd Cross	1	234.00	5.50	0.225	289.58			
					1252.49	**Cum**	**2001.28**	**2506573.18**
Basic Rate	**1888.00**							
AW6%	**113.28**							
Total	**2001.28**							
SRRB M500-6. Providing and applying **primer coat** with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg/ sqm using mechanical means complete as per specifications Clause 502 of MORTH V revision(P.No-158,I No-21.6,KPWD SR 2018-19)Issue rate Dated -01-07-2020								
Hogilu Layout								
1st Main Road Widening	2	477.00	0.90		858.60			
Mattru Layout								
1st Cross	1	437.00	5.50		2403.50			
2nd Cross	1	185.00	5.50		1017.50			
3rd Cross	1	234.00	5.50		1287.00			
					5566.60	**Sqm**	**29.68**	**165216.69**
Basic Rate	**28.00**							
AW6%	**1.68**							
Total	**29.68**							
SRRB 500-2. **Cleaning the existing black topped surface** with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM complete as per specifications. (P.No-158,I No-21.12,KPWD SR 2018-19)								
Total BC Area					10708.00			
Total PC Area					5566.60			
BC-PC					**5141.40**	**Sqm**	**5.30**	**27,249.42**
Basic Rate	**5.00**							
AW6%	**0.30**							
Total	**5.30**							
SRRB 500-7. Providing and **applying tack coat** using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications P.No-161,I No-21.7,KPWD SR 2018-19)Issue rate Dated -01-07-2020								
For DBM								
Hogilu Layout								
1st Main Road	1	1000.00	6.00		6000.00			
For BC								

Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
Nogilu Layout								
1st Main Road	1	1000.00	6.00		6000.00			
Matru Layout								
1st Cross	1	437.00	5.50		2403.50			
2nd Cross	1	185.00	5.50		1017.50			
3rd Cross	1	234.00	5.50		1287.00			
					16708.00	**Sqm**	**12.72**	**212525.76**
Basic Rate	**12.00**							
AW6%	**0.72**							
Total	**12.72**							
MORRB M500-17. Providing and laying **dense graded bituminous macadam** using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 505 of MORTH V revisionusing 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen (P.No-160,I No-21.17.6,KPWD SR 2018-19) Issue rate Dated -01-07-2020									
Nogilu Layout								
1st Main Road	1	1000.00	6.00	0.05	300.00			
Matru Layout								
1st Cross	1	437.00	5.50	0.05	120.18			
2nd Cross	1	185.00	5.50	0.05	50.88			
3rd Cross	1	234.00	5.50	0.05	64.35			
					535.40	**Cum**	**6407.70**	**3430682.58**
Basic Rate	**6045.00**							
AW 6%	**362.70**							
Total	**6407.70**							
Providing and laying **bituminous concrete** 40mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. – do – using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4 % of modified bituminus binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of elastomeric thermoplastics (waste plastic) (P.No-171,I No-21.78.12,KPWD SR 2018-19) Issue rate Dated 01-07-2020									
Nogilu Layout								
1st Main Road	1	1000.00	6.00	0.04	240.00			
Matru Layout								
1st Cross	1	437.00	5.50	0.04	96.14			
2nd Cross	1	185.00	5.50	0.04	40.70			
3rd Cross	1	234.00	5.50	0.04	51.48			
					428.32	**Cum**	**7537.66**	**3228530.53**
Basic Rate	**7111.00**							
AW 6%	**426.66**							
Total	**7537.66**							

Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
KSRRB M600-1.Providing and **Constructing dry lean cement concrete** mix CC 1:5:10 base with OPC 25mm and down size graded granite metal coarse aggregate at 0.86cum and fine aggregates @0.58cum over a prepared sub-base, coarse and fine aggregate conforming to IS: 383-2016,aggregate cement ratio not to exceed 15:1, Aggregate gradation after blending to be as per Table 600-1,optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver, compacting with 8-10 tonnes vibratory roller, finishing and curing complete as per specifications. do- with OPC at 150 kg/cum and coarse aggregate 0.86cum, fine aggregate 0.58cum using Concrete Batch mix Plant at 75 cum/hr capacity with fixed form paver. (P.No-174,I No-21.1.2,KPWD SR 2018-19)								
Kogilu Layout								
Cross Road-3	1	131.00	5.00	0.15	98.25			
Karnataka Pole Road	1	131.00	5.00	0.15	98.25			
Cross Road-1	1	62.00	2.50	0.15	23.25			
Cross Road-2	1	54.00	2.50	0.15	20.25			
					240.00	**Cum**	**3884.90**	**932376.00**
Basic Rate	**3665.00**							
AW 6%	**219.90**							
Total	**3884.90**							
Cement concrete pavement Construction of un-reinforced plain cement concrete pavement, Thickness as per design, over a prepared sub base with 53 grade cement or any other type as per clause 1501.2.2 M30 (Grade) coarse and fine aggregate conforming to IS: 383 maximum size of coarse aggregate not exceeding 25mm , mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weight batcher as per approved mix design laid in approved fixed of 125 micron thick polythene film, wedges steel plates including levelling the form work as per drawing) Spreading the concrete with shovels rackers compacted using needle screed and plate vibrator and finished in a continuous operation including provision of contruction joints primer joint sealant curring of concrete slabs for 14 days and wateri finishing to lines and grade as per drawing and techincal specification clause 1501 with all lead lifts loading & unloading charges cost and conveyance of all materials(P.No-176,I No-22.6.1,KPWD SR 2018-19)								
Kogilu Layout								
Cross Road-3	1	131.00	5.00	0.15	98.25			
Karnataka Pole Road	1	131.00	5.00	0.15	98.25			
Cross Road-1	1	62.00	2.50	0.15	23.25			
Cross Road-2	1	54.00	2.50	0.15	20.25			
					240.00	**Cum**	**5210.96**	**1250630.40**
Basic Rate	**4916.00**							
AW 6%	**294.96**							
Total	**5210.96**							
KSRRB M800-13.**Road Marking with Hot Applied Thermoplastic Compound** with Reflectrising Glass beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification no. 803(P.No-182,I No-24.15,KPWD SR 2018-19)								
Kogilu Layout								
1st Main Road	2	1000.00	0.10		200.00			
Mathru Layout								
1st Cross	2	437.00	0.10		87.40			
2nd Cross	2	185.00	0.10		37.00			
3rd Cross	2	234.00	0.10		46.80			

Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
					371.20	Sqm	454.74	168799.49
Basic Rate	429.00							
AW 6%	25.74							
Total	454.74							
							Total Construction Cost	33507134.67
							Towards GST 12%	4020856.16
							Tender Premium	1675356.73
							Towards DPR & PMC Cost	796000.00
							Sub Total	39999347.57
							Utility Shifting,Miscellaneous and Rounding off	652.43
							GRAND TOTAL	40000000.00

Technical Sanction
Accorded For Rs 400.00 lakhs only
Head of A/C P3801
CER NO : 69 Dt: 10.08.2020
TA — CE (YNK)

Certificate

1. The workspot was inspected and works is found to be necessary.
2. The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3. The rates adopted based on the PWD SR,Bangalore circle for year 2018-2019, Data Rates and Issue rates 01-07-2020

Assistant Engineer
Ward No-05
BBMP Bangalore

Asst. Executive Engineer,
Project Division Yelahanka
BBMP Bangalore

Executive Engineer,
Project Division Yelahanka
BBMP Bangalore

Administrative Approval

Accorded For Rs 400.00 lakhs
Head of A/C P3801
CER NO : 63 Dt: 05/12/2020

S.E. (Project)